

What is claimed is:

1. A cooling system for a fuel cell system comprising:
a circulation system including a circulation pump for
circulating coolant, the coolant essentially consisting
of water and glycol;

5 a fuel cell connected to the circulation system so as to be
cooled by the coolant;

a heat exchanger connected to the circulation system so as
to radiate heat from the coolant; and

10 a filter connected to the circulation system and configured
to remove oxidation reaction product of the glycol from
the coolant.

2. The cooling system of claim 1, wherein:

the filter comprises a ruthenium supporting activated carbon
15 filter.

3. The cooling system of claim 1, wherein:

the filter comprises activated carbon particles each
supporting ruthenium.

4. The cooling system of claim 1, wherein:

20 the filter comprises a pair of connection ports communicating
with the circulation system, a tubular main body, a pair
of mesh members made of stainless steel, the mesh members
being respectively disposed at the both ends and the inside
of the tubular main body, and activated carbon particles
each supporting ruthenium.

25 5. The cooling system of claim 1, wherein:

the filter is disposed upstream of the circulation pump.

6. A cooling system for a fuel cell system comprising:
a circulation system including a circulation pump for
circulating coolant, the coolant essentially consisting
of water and glycol;
- 5 a fuel cell connected to the circulation system so as to be
cooled by the coolant;
- a heat exchanger connected to the circulation system so as
to radiate heat from the coolant; and
- 10 a gas injector connected to the circulation system and
configured to inject inert-gas into the circulation system
so as to purge the oxidation reaction product of the glycol
from the coolant.
7. The cooling system of claim 6, wherein:
the inert-gas essentially consists of nitrogen.
- 15 8. The cooling system of claim 6, wherein:
the gas injector is disposed upstream of the circulation pump.
9. A cooling method for a fuel cell system comprising the
steps of:
circulating coolant essentially consisting of water and
20 glycol through a fuel cell, a heat exchanger and
degradation prevention means; and
removing oxidation reaction product of the glycol from the
coolant by the degradation prevention means.
- 25 10. The cooling method of claim 9, wherein:
the removing step comprises filtering the oxidation reaction
product.
11. The cooling method of claim 9, wherein:

the removing step comprises injecting inert-gas to the coolant so as to purge the oxidation reaction product from the coolant.